

5 I claim:

1. A precast concrete plank formed by recycling wet surplus concrete in cement trucks returning from a worksite, said recycling comprising progressively emptying said surplus concrete into a residual-collection mold over the course of time until the recycled concrete builds into one or more completed precast concrete planks, said residual-collection mold further comprising a casting bed including a rectangular steel plate floor, four steel plate perimeter walls, and a plurality of lengthwise and widthwise steel plate dividers each having a tapered cross-section, said precast concrete plank further comprising:

a concrete plank molded and hardened in said casting bed and having at least one embedded lifting handle protruding upwardly therefrom, and an integral reinforcement structure embedded throughout said concrete plank.

2. The precast concrete plank according to claim 1, wherein said lifting handle is fixedly attached to said plank.

3. The precast concrete plank according to claim 1, wherein said lifting handle is removably attached to said plank.

4. The precast concrete plank according to claim 1, wherein said plank further comprises at least one texture embossed in a surface of said plank.

5. The precast concrete plank according to claim 1, wherein said plank further comprises at least one pattern embossed in a surface of said plank.

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6. The precast concrete plank according to claim 1, wherein said plank further comprises at least one color applied to a surface of said plank.

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7. The precast concrete plank according to claim 1, wherein said plank further comprises notches formed at each end of said plank.

8. The precast concrete plank according to claim 1, wherein said plank further comprises holes formed proximate each end of said plank.

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9. The precast concrete plank according to claim 1, wherein at least one of said planks is used as a replacement for sub-grade/fill materials.

10. The precast concrete plank according to claim 1, wherein at least one of said planks is used as a supplement to sub-grade/fill materials.

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11. The precast concrete plank according to claim 1, wherein at least one of said planks is used for traversing excavations, ditches, waterways, and the like.

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12. The precast concrete plank according to claim 1, wherein at least one of said planks is used to prevent soil erosion.

5 13. The precast concrete plank according to claim 1, wherein at least one of said planks
is used to construct surfaces supporting the passage of people, vehicles, animals, and the like.

14. The precast concrete plank according to claim 7, wherein at least one of said planks
is used in conjunction with at least two soldier piles to construct shoring walls in trenches,
10 excavations, and the like.

15. The precast concrete plank according to claim 8, wherein at least two of said planks
are used in conjunction with at least one alignment rod to construct stack walls.

15 16. Structures comprising:

one or more first precast concrete planks formed by recycling wet surplus concrete in
cement trucks returning from a worksite, said recycling comprising progressively emptying
said surplus concrete into a residual-collection mold over the course of time until the
recycled concrete builds into one or more completed first precast concrete planks, said
20 residual-collection mold further comprising a casting bed including a rectangular steel plate
floor, four steel plate perimeter walls, and a plurality of lengthwise and widthwise steel plate
dividers each having a tapered cross-section, each of said one or more first precast concrete
planks being molded and hardened in said casting bed and further comprising at least one
embedded lifting handle protruding upwardly therefrom, and an integral reinforcement
25 structure embedded throughout said first plank; and

one or more second precast concrete planks formed by recycling wet surplus concrete in
cement trucks returning from a worksite, said recycling comprising progressively emptying

5 said surplus concrete into a residual-collection mold over the course of time until the
recycled concrete builds into one or more completed second precast concrete planks, said
residual-collection mold further comprising a casting bed including a rectangular steel plate
floor, four steel plate perimeter walls, and a plurality of lengthwise and widthwise steel plate
dividers each having a tapered cross-section, each of said one or more second precast
10 concrete planks being molded and hardened in said casting bed and further comprising at
least one embedded lifting handle protruding upwardly therefrom, an integral reinforcement
structure embedded throughout said second plank, and notches formed at each end of said
second plank.

15 17. Structures according to claim 16, further comprising one or more third precast
concrete planks formed by recycling wet surplus concrete in cement trucks returning from a
worksite, said recycling comprising progressively emptying said surplus concrete into a
residual-collection mold over the course of time until the recycled concrete builds into one or
more completed third precast concrete planks, said residual-collection mold further
20 comprising a casting bed including a rectangular steel plate floor, four steel plate perimeter
walls, and a plurality of lengthwise and widthwise steel plate dividers each having a tapered
cross-section, each of said one or more third precast concrete planks being molded and
hardened in said casting bed and further comprising at least one embedded lifting handle
protruding upwardly therefrom, an integral reinforcement structure embedded throughout
25 said third plank, and holes formed proximate each end of said third plank.

18. Structures comprising:

5 one or more first precast concrete planks formed by recycling wet surplus concrete in
cement trucks returning from a worksite, said recycling comprising progressively emptying
said surplus concrete into a residual-collection mold over the course of time until the
recycled concrete builds into one or more completed first precast concrete planks, said
residual-collection mold further comprising a casting bed including a rectangular steel plate
10 floor, four steel plate perimeter walls, and a plurality of lengthwise and widthwise steel plate
dividers each having a tapered cross-section, each of said one or more first precast concrete
planks being molded and hardened in said casting bed and further comprising at least one
embedded lifting handle protruding upwardly therefrom, and an integral reinforcement
structure embedded throughout said first plank; and

15 one or more second precast concrete planks formed by recycling wet surplus concrete in
cement trucks returning from a worksite, said recycling comprising progressively emptying
said surplus concrete into a residual-collection mold over the course of time until the
recycled concrete builds into one or more completed second precast concrete planks, said
residual-collection mold further comprising a casting bed including a rectangular steel plate
20 floor, four steel plate perimeter walls, and a plurality of lengthwise and widthwise steel plate
dividers each having a tapered cross-section, each of said one or more second precast
concrete planks being molded and hardened in said casting bed and further comprising at
least one embedded lifting handle protruding upwardly therefrom, an integral reinforcement
structure embedded throughout said second plank, and holes formed proximate each end of
25 said second plank.